ANALYZER WITH SAMPLE QUALITY MEASUREMENT, AND METHOD

ABSTRACT OF THE DISCLOSURE

A system for detecting and analyzing patient sample quality and/or analytes, while the sample is in the metering tip used to aspirate the sample liquid from an original patient sample container, and also to dispense the liquid onto a slide test element. Spectrophotometric analysis may be done on the sample liquid while it is still in the tip which has been converted into a cuvette. One technique for such analysis is by scanning the cuvette for transmittance in a light-tight enclosure. Near-infrared and adjacent visible radiation may be used, and the absorption spectra of the liquid detected and analyzed. A possible aspect of the present invention relates to enhancing throughput of an analyzer by conducting a sample quality measurement in a process that is parallel to the main analyzer timing cycle. Another possible aspect of the present invention relates to improving performance of the analyzer by sealing the end of the metering tip to spontaneously form a cuvette for holding the sample during the sample quality measurement. Some advantages of the present system and method include improved throughput, the capability to use smaller sample liquid volumes, eliminating any need for a separate supply of cuvettes independent of the metering tips, and providing for detection through a cone of the metering tip rather than through any label, compared to doing the scanning of the sample liquid in a primary patient collection container.